

# NHDOT SPR2 PROGRAM

## RESEARCH PROGRESS REPORT

### INSTRUCTIONS:

Project Managers and/or research project investigators should complete a progress report at least every three months during the project duration. Reports are due the 5<sup>th</sup> of the month following the end of the quarter. Please provide a project update even if no work was done during this reporting period.

<b>Project #</b> 26962J		<b>Report Period</b> Year: 2017 <input checked="" type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input type="checkbox"/> Q3 (Jul-Sep) <input type="checkbox"/> Q4 (Oct-Dec)	
<b>Project Title:</b> UAS and Transportation Projects			
<b>Project Investigator:</b> Jarlath O'Neil-Dunne <b>Phone:</b> 802-656-3324		<b>E-mail:</b> joneildu@uvm.edu	
<b>Research Start Date:</b> December 1, 2016	<b>Research End Date:</b> September 30, 2019	<b>Project schedule status:</b> <input type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input checked="" type="checkbox"/> Behind schedule	

### Brief Project Description:

The overall objective of this project is to evaluate UAS technology for a broad range of case studies relating to the specific needs of the New Hampshire Department of Transportation (NH DOT). Specifically, this project seeks to:

1. Determine the types of transportation projects for which UAS are best suited for.
2. Evaluate the capabilities and limitations, along with the costs and benefits, of using UAS technology for a variety of transportation projects.
3. Outline the policies, procedures, staffing, and information technology infrastructure required for NH DOT to fully implement UAS technology.
4. Develop NH DOT's UAS capabilities.

### Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

- UAS presentation at the NH DOT Winter Technical Meeting.
- Established a stakeholder advisory committee (Task 1).
- UAS mission planning profiles (Task 3).
- Generate UAS products (Task 5).

Provide UAS products to NH DOT (Task 6).

### Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc...):

- Participation in case studies.

### Anticipated research next 3 months:

- UAS mission planning profiles (Task 3).
- UAS operations (Task 4).
- Generate UAS products (Task 5).
- Provide UAS products to NH DOT (Task 6).

### Circumstances affecting project: Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and budget, along with recommended solutions to those problems.

The original project work plan assumed an October 1, 2016 start date. Project was not officially approved until December 21, 2016. The approval date, combined with the holiday season, resulted in a delayed start. Weather conditions, principally the presence of snow on the ground and extensive periods of rain and wind, during Q1 2017 prevented any flights from occurring. Given the extensive time reserved for UAS operations we are not concerned about being slightly behind schedule at this stage and fully anticipate being caught up by Q2 2017.

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<b>Tasks (from Work Plan)</b>	<b>Planned % Complete</b>	<b>Actual % Complete</b>
Task 1: Establish a stakeholder advisory committee	100%	100%
Task 2: UAS Case Studies	100%	90%
Task 3: UAS Mission Planning Profiles	100%	90%
Task 4: UAS Operations	10%	0%
Task 5: UAS Products	5%	0%
Task 6: Provide UAS Products to NH DOT	0%	0%
Task 7: Implementation Assessment	0%	0%
Task 8: Reporting	0%	0%